

Amendment to the Specification:

Please replace the paragraph beginning at page 9, line 16 with following amended paragraph:

The first amplifying part in the conventional common source TIA 100 has an input frequency magnitude ω_{in} given as follows:

$$\left[\left[\omega_{in} = \frac{1}{R_S [C_{GS} + (1 + g_m R_D) D_{GD}]} \right] \right] \omega_{in} = \frac{1}{R_S [C_{GS} + (1 + g_m R_D) C_{GD}]} \text{ Eq. 1,}$$

wherein C_{GS} is a capacitance between a gate and a source of the transistor 10; C_{GD} is a capacitance between the gate and a drain of the transistor 10; g_m is a transconductance of the transistor 10; and R_D is a drain resistance of the transistor 10.